

The Claims Defining the Invention are as Follows

1. A microparticle composition comprising nanomagnetic particles and a matrix.
2. The microparticle composition according to claim 1 wherein the nanomagnetic particles are incorporated into each microparticle within the matrix.
- 5 3. A microparticle composition(s) comprising nanomagnetic particles and a matrix, wherein said microparticle composition(s) have a least one of the following properties: (a) a VAR of at least about 1 Watts/cm³ subject to appropriate field conditions; (b) a density of about 2.7 or less; or (c) a size of about 100 nm to about 200 microns.
- 10 4. A microparticle composition(s) comprising nanomagnetic particles and a matrix, wherein less than approximately 40% of the microparticle composition(s) is nanomagnetic particles and having at least one of the following properties: (a) a VAR of at least about 10 Watts/cc subject to appropriate field conditions; (b) a density of about 2.7 or less; or (c) a size of
15 about 100 nm to 200 microns..
5. A microparticle composition(s) a preparation of microparticle composition(s) comprising nanomagnetic particles and a matrix, wherein less than approximately 40% of the microparticle composition(s) is nanomagnetic particles and having at least one of the following properties: (a) a VAR of at
20 least about 10 Watts/cc subject to appropriate field conditions; (b) a density of about 2.7 or less; or (c) a size of about 100 nm to 200 microns. A microparticle composition(s) comprising nanomagnetic particles and a matrix, wherein less than approximately 40% of the microparticle composition(s) is nanomagnetic particles and having the property of a density of about 2.7 or less.
- 25 6. A microparticle composition(s) comprising nanomagnetic particles and a matrix, wherein less than approximately 40% of the microparticle composition(s) is nanomagnetic particles and having the property of a size of about 100 nm to about 200 microns.

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7. A microparticle composition(s) comprising nanomagnetic particles and a matrix, wherein less than approximately 40% of the microparticle composition(s) is nanomagnetic particles and having the properties of a VAR of about 10 Watts/cm³ or more subject to appropriate field conditions; a density of about 2.7 or less and a size of about 100 nm to about 200 microns.
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8. A microparticle composition(s) according to anyone of claims 1 to 8 wherein the nanomagnetic particles are superparamagnetic particles.
9. A microparticle composition(s) according to claim 9 wherein the superparamagnetic particles are nanoparticles selected from within the group of ferrites of general formula MO.Fe₂O₃ where M is a bivalent metal such as Fe, Co, Ni, Mn, Be, Mg, Ca, Ba, Sr, Cu, Zn, Pt or mixtures thereof, or magnetoplumbite type oxides of the general formula MO.6Fe₂O₃ where M is a large bivalent ion, metallic iron, cobalt or nickel.
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10. A microparticle composition(s) according to claim 9 wherein the superparamagnetic particles are nanoparticles of pure Fe, Ni, Cr or Co; oxides of Fe, Ni, Cr or Co; or mixtures of Fe, Ni, Cr or Co.
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11. A microparticle composition(s) according to claim 9 wherein the superparamagnetic particle is a nanoparticle of iron oxide such as magnetite (Fe₃O₄) or maghemite (γ -Fe₂O₃) with a particle size less than 50 nanometers and between 1 and 40 nanometers.
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12. A microparticle composition(s) according to claim 9 wherein the superparamagnetic particles are maghemite nanoparticles.
13. A microparticle composition(s) according to any one of claims 1 to 13 adapted for use in a patient and which is capable of heating tissue in that patient when exposed to an alternating magnetic field.
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14. A method for heating a target site in a patient including the steps of:

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- (i) administering a microparticle composition(s) according to any one of claims 1 to 13 to a target site in said patient; and
 - (ii) exposing the target site to an AC magnetic field of a clinically acceptable frequency and strength, which is capable of inducing heating of the target site.
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15. The method according to claim 15 wherein the microparticles are of a size and density that facilitates the effective transport to ultimately embolise the capillary beds supplying the target site.
16. The method according to claim 15 wherein the operating conditions of the AC magnetic field is a frequency in the range of about 50-300 kHz and strength of about 60-120 Oe.
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17. The method according to claim 15 wherein the operating conditions of the AC magnetic field is a frequency of about 100 kHz and a strength of about 90 Oe.
18. The use of a microparticle composition according to any one of claims 1 to 13 for the preparation of a medicament for the treatment of diseased tissue.
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